

**AMENDMENT AND RESPONSE****PAGE 2**

Serial No.: 10/056,270

Filing Date: 1/24/2002

Attorney Docket No. 100.323US01

Title: ELECTRICAL NOISE PROTECTION

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**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of claims:**

1. (Currently Amended) An electronic device comprising:

a circuit board;

a first circuit disposed on a first side of the circuit board, the first circuit connected to a first ground plane of the circuit board;

a second circuit disposed on a second side of the circuit board, wherein the second side is opposite the first side, the second circuit connected to a second ground plane of the circuit board; and

wherein the first and second ground planes respectively lie in different planes of the circuit board and are electrically interconnected by a conductive trace disposed within the circuit board; and

wherein the second circuit operates at current levels substantially lower than the first circuit.

2. (Original) The electronic device of claim 1, wherein the first circuit is a switch-mode power supply.

3. (Original) The electronic device of claim 2, wherein the switch-mode power supply is a forward-type switch mode power supply.

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4. (Original) The electronic device of claim 2, wherein the switch-mode power supply is a flyback-type switch mode power supply.

5. (Original) The electronic device of claim 1, wherein the second circuit controls the first circuit.

6. (Original) The electronic device of claim 1, wherein the first circuit is adapted to power the second circuit.

7. (Canceled)

8. (Withdrawn) The electronic device of claim 1, wherein the first ground plane is disposed on the first side of the circuit board.

9. (Withdrawn) The electronic device of claim 1, wherein the second ground plane is disposed on the second side of the circuit board.

10. (Withdrawn) The electronic device of claim 1, wherein the first circuit comprises a plurality of switch-mode power supply power loops.

11. (Original) The electronic device of claim 1, wherein the circuit board comprises two or more layers disposed between the first and second sides.

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12. (Original) The electronic device of claim 11, wherein the first ground plane is disposed on one of the two or more layers and the second ground plane is disposed on another of the two or more layers.

13. (Original) The electronic device of claim 1, wherein the circuit board comprises one or more layers disposed between the first and second sides.

14. (Withdrawn) The electronic device of claim 13, wherein the first ground plane is disposed on one of the one or more layers and the second ground plane is disposed on the second side of the circuit board.

15. (Withdrawn) The electronic device of claim 13, wherein the first ground plane is disposed on the first side of the circuit board and the second ground plane is disposed on one of the one or more layers.

16. (Currently Amended) A switch-mode power supply comprising:

a circuit board;

a power loop disposed on a first side of the circuit board, the power loop connected to a first ground plane of the circuit board;

a control circuit disposed on a second side of the circuit board, the second side opposite the first side, the control circuit connected to a second ground plane of the circuit board, wherein the control circuit is adapted to control the power loop; and

wherein the first and second ground planes respectively lie in different planes of the circuit board and are electrically interconnected by a conductive trace disposed within the circuit board; and

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wherein the control circuit operates at current levels substantially lower than the power loop.

17. (Original) The switch-mode power supply of claim 16, wherein the power loop is adapted to power the control circuit.

18. (Canceled)

19. (Withdrawn) The switch-mode power supply of claim 16, wherein the first ground plane is disposed on the first side of the circuit board.

20. (Withdrawn) The switch-mode power supply of claim 16, wherein the second ground plane is disposed on the second side of the circuit board.

21. (Withdrawn) The switch-mode power supply of claim 16, wherein the power loop comprises a plurality of power loops.

22. (Original) The switch-mode power supply of claim 16, wherein the circuit board comprises two or more layers disposed between the first and second sides.

23. (Original) The switch-mode power supply of claim 22, wherein the first ground plane is disposed on one of the two or more layers and the second ground plane is disposed on another of the two or more layers.

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24. (Original) The switch-mode power supply of claim 16, wherein the circuit board comprises one or more layers disposed between the first and second sides.

25. (Withdrawn) The switch-mode power supply of claim 24, wherein the first ground plane is disposed on one of the one or more layers and the second ground plane is disposed on the second side of the circuit board.

26. (Withdrawn) The switch-mode power supply of claim 24, wherein the first ground plane is disposed on the first side of the circuit board and the second ground plane is disposed on one of the one or more layers.

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

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33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

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44. (Canceled)

45. (Canceled)

46. (Canceled)